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ABSTRACT

Secondary vocational instructors, community college instructors, and career directors in three Oregon counties were interviewed to assess usage of occupational cluster guides, individualized instruction packages, and other curriculum materials developed by the Oregon Department of Education (ODE). Focus was on level and depth of usage, deterrents to full utilization of ODE materials, and the types of materials that should be developed in the future. The conclusions include the following: (1) most instructors utilize ODE materials for more than one purpose; (2) the use of materials varies between teachers of the various occupational clusters; (3) most instructors utilize materials in developing curriculum, supplementing instruction, and planning their program; (4) most instructors have ODE materials located in their offices or classrooms; (5) there has not been an organized approach for getting new materials into the field; (6) preservice and post-graduate training should be more intensive in how to use the cluster guides in curriculum development and the adaptation of individualized learning materials; (7) the primary deterrents to the use of ODE materials are the limited range of usage for some materials, lack of training in the proper use of materials, and lack of knowledge of existence of materials; and (8) future publications should contain more specifics that are helpful to the classroom teacher. (EM)

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FINAL REPORT

THE UTILIZATION OF THE OREGON DEPARTMENT OF EDUCATION MATERIALS BY VOCATIONAL TEACHERS IN LINN, BENTON AND LINCOLN COUNTIES

(Project No. 370-10)
(Grant No. 22-000-059)

Ada Lofts

Linn-Benton I.E.D.

Albany, Oregon

June 30, 1977

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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OREGON DEPARTMENT OF EDUCATION
CAREER PROGRAM DEVELOPMENT AND EVALUATION UNIT

APPLIED RESEARCH

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CE 015 808

ABSTRACT

TITLE: The Utilization of the Oregon Department of Education Materials by Vocational Teachers in Linn, Benton and Lincoln Counties

INSTITUTION: Linn-Benton IED
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PROJECT DURATION: March 14, 1977 to June 30, 1977

COSTS:

Federal	Local	Total
$967.42	$399.00	$1366.42

NUMBER OF STUDENTS AFFECTED: NA

PROJECT DESCRIPTION: Since the advent of the cluster concept into Oregon schools, the Oregon Department of Education has devoted a massive amount of time and resources into the development of cluster guides, individualized instruction packages, and other curriculum materials. A need exists to survey the current users of ODE materials to determine the nature and extent of the use of existing materials and secure field recommendations for future curriculum guides.

PURPOSE: The purposes of this project are:
(1) to identify the level and depth of material usage; and
(2) to identify deterrents to full utilization of ODE materials; and
(3) to recommend types of materials that should be developed by ODE in the future.

PROCEDURES AND OUTCOMES: A survey of all secondary vocational instructors, community college instructors, and career directors was conducted through an oral questionnaire procedure. The questionnaire responses were summarized, analyzed, and tabulated for the purpose of drawing conclusions and making recommendations about the utilization of ODE produced materials.

I. INTRODUCTION

Rationale for the Study

Many dollars and hours have been spent in the development and preparation of materials such as cluster guides and individualized materials for use by vocational teachers. There is a common concern among Oregon Department of Education staff and Career Directors in the field that materials are not being utilized to their fullest extent.

Outcomes of this study will be (1) to identify additional strategies for utilizing ODE produced materials, and (2) to identify the types of materials that should be developed for use at the classroom level.

Statement of Problem

The central problem of this study is to determine to what extent Oregon Department of Education (ODE) produced guides and other teaching materials are being utilized by vocational teachers at the preparation and specialization level in state approved vocational programs.

This problem invclves the following components:

(1) To what extent are state guides and other supportive materials available to the vocational teacher? If not available, why not?

(2) To what extent are ODE materials being utilized by the vocational teacher? If not being used, why not?

(3) What types of materials should the ODE be developing?

The Objectives of the Study

The objectives of this study are as follows:

(1) To develop a list by approved vocational programs of ODE developed materials that are currently available for classroom level use.

(2) Identify ODE developed materials that are now being utilized in approved vocational programs.

(3) Determine the level and depth of usage of ODE developed materials by the vocational teacher.

(4) Identify deterrents to the use of ODE materials.

(5) Recommend types of materials that should be developed by ODE in the future to serve the needs of vocational teachers.

II. REVIEW OF LITERATURE

There was no specific review of literature for this study. It arises from a concern, and as a request, of the ODE. This study will serve as a modest pilot effort to examine the stated problem on a regional basis. This type of study has not been conducted in the state of Oregon.

Mr. Gene Vinarskai, of the Oregon Department of Education, (with ODE staff assistance) developed a list of guides and other instructional materials that have been produced by the ODE for current distribution. (See Appendix Item 4)

III. METHODS

Development of Questionnaire

In the process of developing the questionnaire for this research, it was necessary to consult with Mr. Gene Vinarskai, Coordinator for Research and Exemplary Projects for the Oregon Department of Education; Dr. Wayne Courtney, Coordinator of Vocational Education, OSU; Dr. Joseph Hlebichuk, Assistant Professor of Business/Distributive Education, OSU, (major professor for the project director); various instructors of vocational programs at both the secondary and post-secondary levels; career directors in the secondary schools; and Burr Fancher, Regional Coordinator for Career and Vocational Education for Linn-Benton I.E.D.

It was determined that the questionnaire should be designed to obtain the necessary information to meet the objectives set forth in the study. The following objectives were identified:

(1) To what extent are state guides and other supportive materials available to the vocational teacher?

(2) To what extent are ODE materials being utilized by the vocational teacher?

(3) Identify deterrents to the use of ODE materials.

(4) Determine the level and depth of usage of ODE produced materials by the vocational teacher.

(5) What types of materials should the ODE be developing in the future to serve the needs of vocational teachers?

When field testing the questionnaire with vocational instructors, they pointed out that they did use materials that were not on the official list and suggested a seventh question be added that would include the collection of information of this kind.

To prevent a biased analysis, a coding system was worked out giving each vocational instructor a number, each school a letter, each cluster a number, and each Career Director a number. The coding was handled in the following manner; instructor number, school letter, program number (1-B-13). By using this system, it was possible to refer back to the questionnaire if it was necessary to do further analysis. A color system was used to determine the identification between teachers and career directors. (Teachers responded on a yellow form and career directors responded on a blue form.) At the community college level it was only necessary to use the yellow form.

The questionnaire can be viewed in Appendix Item #5.

Distribution of Questionnaire

The questionnaire was completed by participants utilizing the personal interview method. The Career Director of each participating high school (District Career Education Coordinator in Lincoln County) arranged visitation times that were convenient for the instructors. In some cases, all of the instructors met at the same time which fit the schedules of the participants, but did not effect the method of data collection or bias the results. The Career Directors were interviewed separately and prior to the instructors so they would be familiar with the intent of the project and the method of interviewing.

In the case of three large schools it was necessary to leave the questionnaires for some of the instructors who were not available at the time of the visitations. These questionnaires were returned by the Career Directors. This process did not bias the responses in any way because of the prior orientation of the Career Directors.

This collection method required many trips to participant schools, but because of the small sampling involved (less than 150 total samples), it was considered to be the most valid approach.

Because of the time of year (May) and the heavy schedule of the instructors at Linn-Benton Community College, it was decided to distribute the survey through the office of the Dean of Instruction. This was accomplished through regular staff meetings of the instructors. The completed questionnaires were returned to the project director.

Summary of Questionnaire

As the questionnaires were completed, summary tally sheets were organized by cluster/instructors, cluster/materials list, Career Directors/ materials list, and by school. The open-ended responses for questions 6 and 7 were synthesized according to clusters.

The responses of each question were individually totaled and a Table for each question was completed. Each table indicates by cluster the total instructors responding, total responses for each category, and the percentage responding.

Career Director responses were summarized and compared to those from instructors by use of percentage tables.

The community college was summarized separately and according to technical area. The open-ended responses to questions 6 and 7 were synthesized.

Analysis of Data

Design Matrix (Actual Respondents)

	Teacher	Career Directors	Community College
ODE Material Use	94	11	25

Statistical Tools

Percentage figures were calculated for each item of the questionnaire. Percentages were calculated on totals and by cluster area for the teacher responses. Total percentages were computed on career director responses because they are involved with more than one cluster program. The community college responses were too minimal to allow statistical treatment even though the comments are considered worthy of further examination in the discussion of results.

The chi square was used as a statistical tool for determining the goodness of fit of the response distributions.

To determine if a significant difference exists between responses of career directors and vocational teachers, a simple sign test was used as a test for significance.

IV. RESULTS

Responses were tabulated by cluster for each item on the questionnaire. The first five items required teachers to make checklist responses. The responses were tallied and percentages were calculated by dividing the number of responses in each item by the number of respondents.

The results are compiled in tables that provide the total number of teacher responses by cluster area, the number of responses per item and percentage response per item. (Tables 1-5)

The Chi-Square statistic was utilized to determine if the distribution of responses was significantly different from a normal expected pattern. These goodness of fit tables and chi-square values for the first five items are included in the results. (Tables 6-10)

A contingency table was developed about teacher experience and where the teachers received their training on the use of ODE materials. A chi-square was computed to determine whether a significant difference exists between teaching experience groups in their training for use of ODE materials. The observed and expected tables with chi-square values are included in the results. (Table 11)

Career directors were surveyed to see if their use of materials differed from that of vocational teachers. A comparison of percentage responses to the first five items is included as Table 12. The sign test was utilized as a statistical tool to determine if a difference exists between career directors and teacher responses.

Two items of the questionnaire required open-end responses from the teachers. Those results have been categorized by cluster groupings and are included as Tables 13 and 14.

Community college instructors were surveyed to find out their level of use of the ODE materials. The level of usage was extremely minimal and did not provide sufficient data for analysis. This topic will receive further treatment in the discussion of results and conclusions.

Table 1

1. HOW DO YOU USE THESE MATERIALS?

CLUSTERS	NUMBER OF TEACHER RESPONSES	Develop Curr.	% of Use	Plan Program	% of Use	Indiv. Instruc.	% of Use	Supplem. Instruc.	% of Use
1. Accounting	5	3	60	1	20	2	40	4	80
2. Agriculture/Horticulture	9	6	66.6	6	66.6	2	22	5	55
3. Child Care	3	3	100	3	100	0	0	3	100
4. Construction	11	8	73	7	64	0	0	4	36
5. D.O./Work Experience	5	4	80	2	40	1	20	4	80
6. Electricity/Electronics	4	1	25	2	50	2	50	2	50
7. Food Service	4	3	75	3	75	1	25	3	75
8. Forest Products	2	2	100	1	50	0	0	2	100
9. Health Occupations	3	3	100	2	66.6	0	0	1	33.3
10. Auto/Industrial Mechanics	10	6	60	3	30	5	50	8	80
11. Marketing	5	3	60	4	80	2	40	0	0
12. Metals	5	1	20	2	40	0	0	2	40
13. Office Education	26	19	73	11	42	4	15	15	58
14. Vocational Drafting	1	1	100	1	100	0	0	0	0
15. Service Occupations	1	1	100	1	100	0	0	0	0
COMPOSITE OF ALL CLUSTERS	94	64	68	49	52	19	20	53	56

Table 2

2. WHERE IS THIS MATERIAL LOCATED AT THIS TIME?

CLUSTERS	NUMBER OF TEACHER RESPONSES	Office or Class.	%	Career Directors Office	%	District Office	%	Regional Coor.	%	State Special.	%
1. Accounting	5	4	80	1	20	1	20	1	20	0	0
2. Agriculture/Horticulture	9	7	78	1	11	0	0	0	0	0	0
3. Child Care	3	3	100	0	0	0	0	0	0	0	0
4. Construction	11	8	73	3	27	0	0	0	0	0	0
5. D.O./Work Experience	5	3	60	3	60	0	0	0	0	0	0
6. Electricity/Electronics	4	4	100	0	0	0	0	0	0	0	0
7. Food Service	4	4	100	1	25	0	0	0	0	0	0
8. Forest Products	2	2	100	0	0	0	0	0	0	0	0
9. Health Occupations	3	3	100	0	0	0	0	0	0	0	0
10. Auto/Industrial Mechanics	10	7	70	2	20	0	0	0	0	0	0
11. Marketing	5	5	100	1	20	1	20	1	20	1	20
12. Metals	5	3	60	2	40	0	0	0	0	0	0
13. Office Education	26	21	81	3	12	2	8	1	4	3	12
14. Vocational Drafting	1	0	0	0	0	0	0	0	0	0	0
15. Service Occupations	1	1	100	0	0	0	0	0	0	0	0
COMPOSITE OF ALL CLUSTERS	94	75	80	17	18	4	4	3	3	4	4

Table 3

3. HOW DID YOU LEARN ABOUT THESE MATERIALS?

CLUSTERS	NUMBER OF TEACHER RESPONSES	Local Admin.	%	Career Director	%	Fellow Instr.	%	Regional Coor.	%	ODE	%
1. Accounting	5	0	0	1	20	1	20	0	0	1	20
2. Agriculture/Horticulture	9	0	0	2	22	1	11	3	33.3	1	11
3. Child Care	3	0	0	0	0	2	66.6	1	33.3	0	0
4. Construction	11	1	9	5	45	0	0	1	9	1	9
5. D.O./Work Experience	5	0	0	0	0	1	20	2	40	3	60
6. Electricity/Electronics	4	1	25	0	0	1	25	0	0	0	0
7. Food Service	4	0	0	3	75	1	25	1	25	0	0
8. Forest Products	2	0	0	1	50	0	0	0	0	1	50
9. Health Occupations	3	2	66.6	2	66.6	1	33.3	1	33.3	0	0
10. Auto/Industrial Mechanics	10	1	10	4	40	2	20	1	10	0	0
11. Marketing	5	0	0	0	0	2	40	1	20	1	20
12. Metals	5	0	0	3	60	2	40	1	20	0	0
13. Office Education	26	3	11	5	19	4	15	4	15	3	11
14. Vocational Drafting	1	0	0	0	0	1	100	0	0	0	0
15. Service Occupations	1	0	0	0	0	0	0	0	0	1	100
COMPOSITE OF ALL CLUSTERS	94	8	8	26	28	19	20	16	17	12	13

Table 4

4. WHERE DID YOU RECEIVE TRAINING ON THE USE OF THESE MATERIALS?

CLUSTERS	NUMBER OF TEACHER RESPONSES	Pre-Service	%	Local In-Serv.	%	District In-Serv.	%	Regional In-Serv.	%	State In-Serv.	%
1. Accounting	5	1	20	1	20	1	20	0	0	1	20
2. Agriculture/Horticulture	9	4	44	2	22	1	11	1	11	3	33
3. Child Care	3	1	33.3	0	0	0	0	0	0	0	0
4. Construction	11	1	9	1	9	0	0	2	18	0	0
5. D.O./Work Experience	5	1	20	0	0	1	20	1	20	3	60
6. Electricity/Electronics	4	2	50	0	0	0	0	0	0	1	25
7. Food Service	4	1	25	1	25	1	25	1	25	0	0
8. Forest Products	2	1	50	0	0	0	0	0	0	1	50
9. Health Occupations	3	0	0	1	33.3	1	33.3	0	0	0	0
10. Auto/Industrial Mechanics	10	3	30	0	0	0	0	2	20	1	10
11. Marketing	5	2	40	0	0	1	20	0	0	3	60
12. Metals	5	1	20	1	20	0	0	0	0	0	0
13. Office Education	26	8	31	3	11	0	0	1	4	0	0
14. Vocational Drafting	1	1	100	0	0	0	0	0	0	0	0
15. Service Occupations	1	1	100	0	0	0	0	0	0	1	100
COMPOSITE OF ALL CLUSTERS	94	28	30	10	11	5	5	8	8	14	15

Table 5

5. HOW OFTEN DO YOU USE THESE MATERIALS?

CLUSTERS	NUMBER OF TEACHER RESPONSES	Seldom	%	Occasion	%	Monthly	%	Weekly	%	Daily	%
1. Accounting	5	2	40	1	20	0	0	0	0	1	20
2. Agriculture/Horticulture	9	3	33.3	1	11	1	11	2	22	1	11
3. Child Care	3	0	0	1	33.3	1	33.3	0	0	1	33.3
4. Construction	11	3	27	4	36	0	0	1	9	1	9
5. D.O./Work Experience	5	2	40	2	40	0	0	1	20	2	40
6. Electricity/Electronics	4	0	0	2	50	0	0	1	25	0	0
7. Food Service	4	1	25	1	25	0	0	1	25	1	25
8. Forest Products	2	1	50	0	0	0	0	0	0	0	0
9. Health Occupations	3	2	66.6	1	33.3	0	0	0	0	1	33.3
10. Auto/Industrial Mechanics	10	2	20	7	70	0	0	0	0	3	30
11. Marketing	5	1	20	1	20	2	40	0	0	0	0
12. Metals	5	1	20	3	60	0	0	0	0	0	0
13. Office Education	26	8	31	14	54	0	0	2	8	1	4
14. Vocational Drafting	1	1	100	0	0	0	0	0	0	0	0
15. Service Occupations	1	0	0	0	0	1	100	1	100	0	0
COMPOSITE OF ALL CLUSTERS	94	27	29	38	40	5	5	8	8	12	13

Table 6

A Chi-Square (Goodness of Fit) computation was made to determine if the difference in observed values was a chance happening or if a significant difference exists. A significance level of P .01 was selected with 3 degrees of freedom. We assume that inferences can be made if the computed X^2 is larger than the tabular value.

1. USE OF MATERIALS

Observed	64	49	19	53	184
Expected	46	46	46	46	184

$$X^2 = \sum \frac{(O-E)^2}{E}$$

X^2= 24.152 (Computed)

X^2= 11.345 (Table value)

P= .01

Differences in distributions are significant at the P.01 level, using 3 degrees of freedom. This indicates that the differences in materials usage are more than variations by chance and should be utilized as a basis for inference to a total population.

Table 7

2. LOCATION OF MATERIALS

Observed	76	17	4	3	100
Expected	25	25	25	25	100

$$X^2 = \sum \frac{(O-E)^2}{E}$$

X^2= 143.60 (Computed)

X^2= 11.345 (Table value)

The Chi-Square value is significant far beyond the P.01 level, using 3 degrees of freedom. This indicates that differences exist that are far beyond those due to chance.

Table 8

3. HOW DID YOU LEARN ABOUT MATERIALS?

Observed	8	25	19	16	12	80
Expected	16	16	16	16	16	80

$$X^2 = \sum \frac{(O-E)^2}{E}$$

$X^2 =$ 10.624 (Computed)

$X^2 =$ 13.277 (Table value)

There is no significant difference in the distribution at the .01 level of probability, using 4 degrees of freedom. This distribution indicates that teachers have been learning about the materials in a variety of ways, without any single source being more important than the others.

Table 9

4. WHERE DID YOU RECEIVE TRAINING ON THE USE OF THESE MATERIALS?

Observed	28	10	5	8	14	65
Expected	13	13	13	13	13	65

$$X^2 = \sum \frac{(O-E)^2}{E}$$

$X^2 =$ 24.915 (Computed)

$X^2 =$ 13.277 (Table Value)

The Chi-Square value is significant at the .01 level of probability, using 4 degrees of freedom. This indicates that variations in the distribution are greater than chance differences and that inferences may be made from the data.

Table 10

5. FREQUENCY OF USE

Observed	27	38	5	8	12	90
Expected	18	18	18	18	18	90

$$X^2 = \frac{(O-E)^2}{E}$$

$X^2 =$ 26.999 (Computed)

$X^2 =$ 13.277 (Table value)

The Chi-Square value is significant at the .01 level of probability. Variations in the distribution are greater than chance differences and allow inferences to be made about the response areas in regard to the frequency of use of ODE printed materials.

Table 11

Chi-Square Tables (Goodness of Fit)

(Source of training for use of ODE materials by Years of Experience)

Observed

Source of Training on Material Use

Teaching Experience	College	Local	District	Regional	State	None	
0-2 years	6	1	0	1	1	8	17
3-5 years	7	2	2	1	3	13	28
6-10 years	6	0	2	4	2	11	25
over 10 yrs	3	5	0	3	4	8	23
	22	8	4	9	10	40	93

Expected

4.02	1.46	.73	1.65	1.83	7.31	17
6.62	2.40	1.20	2.71	3.01	12.04	28
5.91	2.15	1.07	2.42	2.69	10.75	25
5.44	1.98	.99	2.23	2.47	9.89	23
22	8	4	9	10	40	93

X^2= 11.3466 (Computed value)

X= 30.578 (Table value at df=15 and P.01 or P.05)

Table 12

Comparison of Teacher and Career Director Responses
(By percentage)

Item	Teacher %	Career Director	Sign Test
1. HOW DO YOU USE THESE MATERIALS?			
DEVELOP CURRICULUM	68	91	+
TO PLAN PROGRAM	52	82	+
FOR INDIVIDUALIZED INSTRUCTION	20	36	+
TO SUPPLEMENT INSTRUCTION	56	36	-
2. WHERE IS THIS MATERIAL LOCATED AT THIS TIME?			
IN TEACHERS OFFICE OR CLASSROOM	80	100	+
IN THE LOCAL CAREER DIRECTOR'S OFFICE	18	45	+
IN THE DISTRICT OFFICE	4	0	-
WITH THE REGIONAL COORDINATOR	3	0	-
WITH THE STATE PROGRAM SPECIALIST	4	0	-
3. HOW DID YOU LEARN ABOUT THESE MATERIALS?			
FROM THE LOCAL ADMINISTRATION	8	9	+
FROM THE LOCAL CAREER DIRECTOR	28	9	-
FROM A FELLOW INSTRUCTOR	20	27	+
FROM THE REGIONAL COORDINATOR	17	54	+
FROM THE STATE PROGRAM SPECIALIST	13	27	+

	Teacher %	Career Director	Sign Test
4. WHERE DID YOU RECEIVE TRAINING FOR THE USE OF THESE MATERIALS?			
DURING COLLEGE PREPARATION	30	0	-
AT A LOCAL IN-SERVICE	11	9	-
AT A DISTRICT IN-SERVICE	5	18	+
AT A REGIONAL IN-SERVICE	8	27	+
AT A STATE IN-SERVICE	15	18	+
5. HOW OFTEN DO YOU USE THESE MATERIALS?			
USED SELDOM	29	18	-
USED OCCASIONALLY	40	82	+
USED MONTHLY	5	0	-
USED WEEKLY	8	0	-
USED DAILY	13	0	-
TOTALS			13 + 11 -

Summary of Sign Test

Ho: $m_1 + m_2 = 0$

	+	-	Significance
Question 1	3	1	Yes
Question 2	2	3	Doubtful
Question 3	4	1	Yes
Question 4	3	2	Doubtful
Question 5	1	4	Yes

The sign test summary indicates that there are some differences between the way career directors and teachers use ODE produced materials. Also, a significant difference exists between the groups in where they learned about these materials and the frequency of materials use.

Responses of Instructors

Question #6. What Types of Materials Would you Recommend for Development by the Oregon Department of Education?

Accounting:

1. Learning activities for slow and fast students.
2. Guidelines on how to adapt materials to a lower learning level.
3. Guides for individualizing materials.
4. Lack adequate materials in the cluster guide; should include teacher instructions on "how to do"; use of machines needs to have an accounting slant.
5. Individualized packets should be considered.
6. Include boys in everything!
7. Data folders should be included in the guide.
8. Guide should include information on placement of students.
9. Personal Finance/Consumer materials should be developed.

Agriculture/Horticulture:

1. The guide is too general.
2. A horticulture guide specific for the Willamette Valley area would be most helpful. I would prefer the time and money to develop what I need.
3. Program standards for all areas should be identified for all curriculums at the state level, the regional level, and the national level.
4. Guides should be a resource to implement standards. They should be very specific. (Reference was made to the Oklahoma, Ohio, and Texas Guides).
5. Continue to use teachers as the developers of the guides and other materials.
6. More training is needed in tools and techniques of teaching.
7. Guides should include goals and objectives, activities, texts, resources, etc. (Reference was made to the Oklahoma, Ohio, and Texas Guides).
8. Individualized Packets. (A suggestion was given to include an indexing system in front of each module plus a master index.
9. More training is needed on how to utilize guides.
10. Develop Core Curriculum Guides similar to those developed in Arizona, Oklahoma, Wisconsin, Ohio.
11. Guide should include unit outlines with reference materials.

Child Care:

1. The guides that are being prepared look good. I would like to see them distributed out into the schools. We have been waiting for a number of years.
2. The guide should be improved to include realistic materials and activities. The first year teacher needs the "How to do" instructional guides such as Ohio Curriculum Guide that includes methods of teaching, activities, etc. Why don't we have a curriculum guide like Ohio?
3. Beginning teachers with only a Home Economics background need some very specific "How to do's" and terminology explanations.

Construction:

1. The guide should be something that could be used in a small school program.
2. The guide should be a curriculum guide that includes minimum competencies, supportive materials, "How to do", and testing methods.
3. Standardization of competency based curriculum so that students could move from school to school.
4. Individualized packets to supplement basic curriculum.
5. Pre-service instruction on how to use the guides should be provided.
6. List of resources should be provided with a description of the resources.
7. TV tapes of wood procerses to be used for individualized instruction. These should include printed data support, post and pre-tests. Teachers should assist in this development.
8. The guide should include goals, objectives, implementation, activities, performance indicators. It should be organized so that students could use it as well as teachers. VICA should be included--how to utilize and integrate with classroom instruction.
9. Minimum standards for Junior High School achievement in order to enter high school.
10. Beginning teachers need some very specific "How to do's" and terminology clarification.

D.O./Work Experience:

1. Policies for the local school administration to abide by and enforced by the State Specialists based upon the acceptance of receiving district funds.
2. Up-date existing materials.
3. Pre-service training needed on how to use the materials.
4. Materials should be more specifically related to the field.
5. More materials for work experience.
6. Curriculum Guides should include more of the "nuts and bolts" of implementation ideas to help with teaching.
7. Identify key instructors to work on a total guide to be used by career directors and work experience coordinators. This should be coordinated to come up with a core document that includes all clusters.
8. ODE should produce a Cooperative Work Experience Guide and a D.O. Guide.

Electricity/Electronics:

1. Slide and tape presentation.
2. Materials that can be reproduced at cost of the materials and use research and development funds for the labor and cost of distribution. There are at present good materials, but the cost is prohibitive.

Food Service:

1. The new Food Service Guide is well done and useful. Perhaps to include some additions such as is done in the Texas Food Service Guide would be helpful to most teachers.
2. Continue developing the ILS System.
3. The cluster guide could include more learning experiences to support the identified objectives.

Forest Products:

1. A Forest Products Assessment Guide is needed.
2. Materials is needed on tree identification--slide program.
3. Presentation on log scaling--must be technical and narrated by a professional.
4. A guide similar to instructor's core guide should be developed.
5. Guidelines on how to integrate a youth organization into the curriculum.
6. Our materials should be up-dated about every three to five years. At present they are current.
7. Teachers should have input to whatever is developed.

Health Occupations:

1. Health Occupations Cluster Guide revised to allow for a one year program.
2. Individualized packets for specialized areas. Something that covers legal aspects and ethics.
3. The current cluster guide is good as a curriculum guide. It should be up-dated to keep it current.

Auto/Industrial Mechanics:

1. Proficiency check-off sheets for letting student as well as instructor measure wants and needs.
2. An up-dated version of the Industrial Mechanics Audio-Visual Supplement.
3. A guide to federal funds available to Vocational Education in Oregon.
4. A guide to the many "Guides" so that we know about them and a means of receiving them.
5. A publication featuring facilities and programs currently in operation in Oregon by cluster.
6. More effort should be directed toward the development of additional ILS materials.
7. In-service is needed in how to use the guides.
8. In-service should be provided for administrators so that they would have a better understanding of how each cluster should operate.
9. The guides need to provide more detail such as learning activities, implementation techniques, etc.
10. Vo-Tech math packages should be taken to a lower level so that more students can use them.
11. Film strip production is needed, worksheets included.
12. Keep guides very practical, use teachers to assist with all material preparation.

Marketing:

1. Guides should be so that the teacher could put them to practical use, rather than something that looks good, but gets no use by the teacher.
2. The Oregon Department of Education should not be involved in producing materials. Funding should be forwarded through grants to individual districts. Regional and state expenditure for materials should be eliminated--they only duplicate efforts.
3. Individualized instruction programs should be developed to fit our programs. IDECC and Texas materials are good examples.

Metals:

1. Video-tape program learning for use in the metals shop.
2. We need a good cluster guide.
3. More material on actual classroom ideas for career information at the exploration level.
4. Develop something we can understand and use.

Office Education:

1. Cluster guide should be competency-based with supportive learning activities.
2. Individual learning packets for Typing I and II and Business Machines, and other office education areas.
3. We need in-service on how to use materials.
4. A realistic employement skill level for the student--what will really be expected of the student when they graduate.
5. The cluster guides should be revised and upgraded.
6. Word processing needs to be included in the revised guide.
7. A resource list of people, materials, equipment that is current should be included in the guide revision.
8. We need help in adjusting curriculum for the low achiever and the very high achiever.
9. We need to be informed of what the state expects us to be teaching in our areas.
10. Guides should include resources, ideas for teaching, "how to implement", details on how to teach a competency or skill, how to integrate the youth organization (FBLA).
11. We need more information on how to use FBLA in the classroom.
12. Update "So Now You're on Your Own".
13. Medical/Legal secretarial tasks should be identified and included in a guide.
14. I would like to see a Business Management cluster guide developed for implementation at the high school level.
15. The Office/Steno guide needs to be up-dated.

Vocational Drafting:

1. State guidelines for competencies that students should have when leaving this vocational area. There needs to be some uniformity between schools. Guidelines would help.

Service Occupations:

1. Activities guides for all areas of the curriculum.

Question #7. What Materials do you Utilize that are not on the Official List?

Accounting:

1. Personal Finance materials for supplementary.

Agriculture/Horticulture:

1. I use the Ohio, Oklahoma, Texas and Arizona guides.
2. Agriculture Resource Publication, State of Oregon.
3. Agriculture Program Assessment Guide.
4. Horticulture Guide.

Child Care:

None

Construction:

None

D.O./ Work Experience:

1. State Cooperative Work Experience Guide
2. State D.O. Guide
3. Cooperative Work Experience--Training Plans (Clatsop I.E.D.)
4. Work Experience Program--Planning, Implementation, Evaluation. (Clatsop I.E.D.).

Electricity/Electronics:

1. ICE, Multi-faceted Reference Library.

Food Service:

1. Career Education Assessment Guide.
2. Slide-tape from Howard Brock.

Forest Products:

1. DCE slide-tape programs (Forest Products related).

Health Occupations:

1. Lincoln County guidelines and materials gathered for workshops and inservices.

Auto/Industrial Mechanics:

1. Publication from the Motor Vehicle Manufacturers Association

2. Publication from the Automotive Service Industry Association.
3. Film-strips--Encyclopedia Britannica.
4. Cluster Guides, U.S. Department of HEW in Ag Production, Ornamental Horticulture. (Mechanics parts).
5. Ford and General Motors Training Manuals.

Marketing:

None

Metals:

1. Welding guide developed by Lincoln Welding Co.

Office Education:

1. Personal Finance Guide.
2. Cooperative Work Experience, Lebanon.
3. Numerous vocational texts, guides, pamphlets, etc.

Vocational Drafting:

None

Service Occupations:

1. Cooperative Work Experience Handbook (Clatsop County I.E.D.).
2. D.O. Curriculum and Activities Guide.
3. Service Occupations Education Activities Guide.

Responses of Career Directors

Question #6. What Types of Materials Would you Recommend for Development by the Oregon Department of Education?

1. Curriculum materials for classroom use.
2. Up-to-date revision of the guides and other materials is necessary.
3. Cluster guides should include basic standards and competencies for use to design curriculum.
4. Continuous manpower should be provided by cluster.
5. The guides should be concise, accessible, easy to read.
6. The guides should include suggestions for regions, contain an easy to use indexing system, nuts and bolts to assist teachers in implementation, not only philosophy.
7. We need to know what materials exist. An in-service might be helpful.
8. Expand the Agriculture Guide to be more broad in areas covered.
9. Inter-disciplinary suggestions: for example, the FoxFire project that is being implemented in several locations.
10. We need a safety manual for schools.
11. Guidelines for inservicing teachers on the use of the materials.

Question #7. What Materials do you Utilize that are Not on the Official List?

1. Portland School District Awareness and Exploratory Guides.
2. Work Experience Assessment Guide.
3. Cooperative Work Experience Coordinators Manual, Clatsop I.E.D.
4. D.O. Guide--Training Plans, Clatsop I.E.D.
5. Curriculum Project, Clatsop I.E.D.
6. Assessment Guides for Planning Programs: Electricity/Electronics, Work Experience, Accounting.
7. Exploratory Kits (grades 4-8).
8. Guidance Packets.
9. FoxFire Materials.
10. Occupational Versatility Guide.

DISCUSSION OF RESULTS

1. How do you use these materials? (Table 1, Page 11)

Most instructors utilize the ODE materials for more than one purpose. Of 94 secondary instructors that responded to the survey, the following uses were indicated:

68% -- used materials to develop curriculum
56% -- used materials to supplement instruction
52% -- used materials to plan their program
20% -- used materials for individualized instruction

Curriculum Development

There seems to be cluster differences in the use of ODE materials for curriculum development purposes. A grouping of high, medium, and low users, by clusters, is shown below:

High (80%-100%)	Medium (60%-80%)	Low (Below 60%)
Child Care	Accounting	Electricity/Electronics
DO/Work Exp.	Agriculture	Metals
Forest Products	Construction	
Health Occupations	Auto/Ind. Mechanics	
Service Occupations	Marketing	
	Office Education	

Although the sample numbers are minimal in some clusters, there is a definite indication that the use of materials varies between teachers of the various occupational clusters. (Some of this may be attributed to the quality of the materials and teacher in-service on their use.)

Supplementing Instruction

Some 56% of the 94 instructors indicated that ODE materials were used to supplement their regular instructional programs. A cluster breakdown of high, medium, and low users is given below:

High (80%-100%)	Medium (60%-80%)	Low (Below 60%)
Accounting	Food Service	Agriculture
Child Care		Construction
D.O./Work Exp.		Electricity/Electronics
Forest Products		Health Occupations
Auto/Ind. Mechanics		Marketing
		Metals
		Office Education
		Drafting
		Service Occupations

Planning Programs

Using the same grouping procedure for instructors that use the materials for planning their programs, we find:

High (80%-100%)	Medium (60%-80%)	Low (Below 60%)
Child Care	Agriculture	Accounting
Marketing	Construction	DO/Work Experience
Drafting	Food Service	Electricity/Electronics
Service Occupations	Health Occupations	Forest Products
		Auto/Ind. Mechanics
		Metals
		Office Education

Individualized Instruction

Individualized instruction does not seem to be a high priority among secondary vocational instructors as reflected by their use of the ILS packages and other ODE produced materials. Only 20% of the 94 cluster teachers indicated that materials from the state list were used to individualize instruction.

Moderate Use (More than 20%)	Little Use (20% or less)	No Use (0%)
Accounting	DO/Work Exp	Child Care
Agriculture	Office Education	Construction
Elect/Elect		Forest Products
Food Service		Health Occupations
Auto/Ind. Mech.		Metals
Marketing		Drafting
		Service Occupations

The clusters that show some use of ODE materials for individualizing instruction are, for the most part, the ones for which ILS materials are available. Some concern should be directed toward the metals, construction, and drafting instructors that indicate zero usage because ILS modules are available for their specific subject areas. Some explanation should be sought for this lack of use.

Range of Usage

This survey indicates that some clusters use materials on a much broader scope than others. For example, the Diversified Occupations/Work Experience instructors showed high usage for curriculum development and as a supplement to their work experience program with little usage in program planning and individualized instruction. On the other hand, the Electricity/Electronics instructors showed rather limited use of the materials. A grouping of high, medium, and low users according to the numbers of ODE documents used is shown below:

High (more than 6)	Medium (4-6)	Low (3 or less)
Agriculture (7)	Forest Products (4)	Accounting (2)
Construction (7)	Health Occupations (5)	Child Care (1)
D.O./Work Exp. (20)		Elect/Elect (3)
Industrial Mech. (11)		Food Service (2)
Office Ed. (8)		Marketing (2)
		Metals (2)
		Service Occupations (3)

A Chi-Square Goodness of Fit computation (Table 6, Page 16) showed a highly significant difference in the distribution of responses to this question. This analysis shows that a significant number of teachers are using ODE materials to develop curriculum (68%) and very few (20%) are using them for individualized instruction.

2. Where is this material located at this time? (Table 2, page 12)

A Chi-Square analysis (Table 7, Page 16) of this question showed a highly significant difference far beyond those due to chance.

The responses on the survey indicated that 80% of the instructors have the materials located in their offices or classroom. Another 18% indicate that the materials are available through the career director.

Location of materials is not a deterrent to use of the ODE guides and ILS packages for most instructors. For maximum utilization, the materials need to be highly accessible to the instructor.

If materials are left in the career directors office, instructors are not likely to use them to their best advantage.

The results indicate that most teachers do have materials in a location that is readily available. Location does not appear to be a deterrent to maximum usage.

3. How did you learn about these materials? (Table 3, page 13)

A Chi-Square analysis (Table 8, page 17) of this question showed no significance in the distribution of 94 responses to where instructors had learned about the materials. The results indicate that there has not been an organized approach for getting new materials into the field. Teachers have learned about them from a variety of sources.

Career directors are expected to introduce new materials to their classroom teachers. Only 28% of the 94 teachers learned of the materials from the career directors. This might be attributed to the fact that many career directors are part time and lack the time, expertise, and commitment to bother with teacher orientation to ODE materials. Whatever the cause, career directors do not seem to have a significant impact in getting vocational teachers acquainted with these materials.

4. Where did you receive training on the use of these materials? (Table 4, page 14)

A Cni-Square computation (Table 9, page 17) showed a highly significant difference in the distribution of responses to this question. This analysis shows that a significant amount of exposure to material use is coming through pre-service training at Oregon State University. This accounts for 30% of all training in the use of ODE materials.

Through the personal interviews of the teachers, it was brought out that the pre-service and post-graduate training should be more intensive in how to use the cluster guides in curriculum development.

Forty out of ninety-three respondents indicated that they had received no training in the use of ODE materials. It appears that this may be a major deterrent to full utilization of ODE materials. Another factor to consider that was pointed out by local career directors is the need for continuous re-training of both veteran and beginning teachers in the use of materials for curriculum development and program planning. A core group received training in the early development of many of the guides. Teacher and career director turnover has left severe gaps in the training for materials usage. Although OSU is partially filling this gap, many teachers do not become involved in workshop programs that provide this training.

5. How often do you use these materials? (Table 5, page 15)

A Chi-Square analysis (Table 10, page 18) of this question showed a highly significant difference in the distribution of responses.

Although a high percentage of instructors indicated they used the cluster guides seldom (29%) or occasionally (40%) many of these same persons stated thay they did use them a great deal when they were designing curriculum or doing program planning.

Those responding to the daily use (13%) and the weekly use (8%) were utilizing the ILS materials or part of the guides that could be adapted for individualized instruction.

The 5% who stated they used the materials monthly used the cluster guides as a check for keeping on-target with their curriculum plan.

Many instructors indicated a desire to be involved in the process of up-dating these materials. They also indicated a need to have materials that are practical and usable by them.

6. What types of materials would you recommend for development by the Oregon Department of Education? (Response list, pages 22-26)

Individualized Materials:

Instructors indicated a need for assistance in how to adapt materials for the slow learner and the fast learner.

Additional individualized materials (ILS) were requested in existing cluster areas as well as new areas.

Existing	New
Construction	Accounting
Electricity/Electronics	Agriculture
Food Service	Health Occupations
Forest Products	Marketing
Auto/Industrial Mechanics	Office Education
Metals	

Career directors concurred with instructor requests in this area.

Cluster Guide

The cluster guides should include teacher instructions on "how to do", information on placement of students, goals, objectives, suggested learning activities, resources, curriculum standards, explanation of terminology, competency-based curriculum. The guides should be revised every 3-5 years. Several D.O./Work Experience coordinators indicated a desire to have the materials developed by Clatsop I.E.D. reproduced and inserviced on a statewide basis. The guides should be adaptable for use in small or large schools.

Clusters Responding:

- Accounting
- Agriculture
- Child Care
- Construction
- D.O./Work Experience
- Food Service
- Forest Products
- Auto/Industrial Mechanics
- Marketing
- Metals
- Office Education
- Vocational Drafting
- Service Occupations

Career directors concurred with the instructor suggestions in regard to the cluster guides.

*See responses to Question #6, pages 22-27 for specific comments.

Other Materials

The following is a composite of suggestions from instructors:

1. Assessment guide for Forest Products.
2. Guidelines for integrating youth organizations into regular curriculum.
3. Guidelines for the adaptation of regular classroom materials for use by the very slow learner and the very fast learner.
4. Development of slide-tape presentation to provide alternative learning methods.
5. Proficiency check-off sheets or data folders allowing students the flexibility to move from one area to another and remain in the same cluster at approximately the same level.
6. Vo-Tech math packages should be rewritten at a lower level of math. The concept is excellent and they are very well developed.

In addition to the above, career directors indicated the need for guidelines on inservicing teachers in the utilization of ODE materials, assistance in the implementation of the Foxfire/inter-disciplinary approach to language arts (could be adapted for use with clusters), and a safety manual for the vocational areas.

7. What materials do you utilize that are not on the official list?

Following is a list of additional materials utilized by instructors:

a. Personal Finance materials were identified as being utilized to supplement the guide for curriculum development.
b. Agriculture Program Assessment Guide.
c. Clatsop I.E.D. Cooperative Work Experience Handbook.
d. Clatsop I.E.D. Cooperative Work Experience--Training Plans.
e. Work Experience Program--Planning, Implementation, Evaluation.
f. ODE - D.O. Guide.
g. ODE - Cooperative Work Experience Guide.
h. Horticulture Guide.
i. Lebanon Guide for Office Education.
j. Service Occupations Education Activities Guide.

Career directors indicated that they utilize some of the above list plus the following:

1. Portland School District Awareness & Exploratory Guides.
2. Work Experience Assessment Guide.
3. Curriculum Project, Clatsop I.E.D.
4. Exploratory Kit (Grades 4-8).
5. Guidance Packets.
6. Foxfire Materials.
7. Occupational Versatility Guide.

Years of Experience

It was an opinion of the researcher that years of teaching experience would have a direct relationship to where the instructor had or had not learned to use the materials. Teacher groups were broken down into four levels of experience and a contingency table developed according to their source of inservice. A Chi-Square (Table 11, page 19) was computed to determine if the distribution differed from the normal pattern. The chi-square statistic failed to show significance in the distribution. This eliminated the need for computing correlation coefficients for this factor.

Forty of the 93 respondents indicated that they had received no training in the use of materials. Of the 40, they were evenly distributed throughout the experience level groups.

Comparison of Teacher & Career Director Responses

A comparison was made of the percentage responses between career directors and teachers. A simple sign test (Table 12, page 20) was made to determine relationships of the two groups.

The sign test summary indicates a significant difference in the uses of materials by the two groups. Career directors used ODE materials to a greater degree in program planning and curriculum development.

Many career directors (54%) learned about the materials from the regional coordinator while only 28% of the instructors learned about materials from their local career directors.

A significant difference exists in the frequency of use between the groups. Career directors (82%) use materials occasionally while teacher use is more diverse.

Discussion of Community College Responses

Three community college instructors indicated that they utilized the ILS materials--Machine Tool, Engineering Technology, Nursing Assistant. The Drafting Technology instructor indicated that he used Metric Studies materials.

The instructors in Culinary Arts and Criminal Justice stated they were involved in developing materials for ODE at the present time.

Twenty-two program responses indicated that instructors did not use any ODE developed materials. (Technical Nursing, Electriciy/ Electronics Technology, Farm Business Management, Agri-business, Recreational Vehicle & Small Engine Repair, Fertilizer and Chemical, Turf-Forage Seed, Turf Management, Animal Tech, Advanced Professional Cooking, Chef Training, Restaurant Management, Culinary Arts, Criminal Justice.) Eight of the twenty-two specifically stated they were not aware of any being available. (Medical Receptionist,

Educational Secretary, Administrative Secretary, Legal Secretary, Secretarial Science, Metallurgical Technology, Fire Science, Science Laboratory.) The instructor of Metallurgical Technology stated a desire to have something developed.

V. CONCLUSIONS

1. How do you use these materials?

   a. Most instructors utilize ODE materials for more than one purpose.
   b. There is a definite indication that the use of materials varies between teachers of the various occupational clusters.
   c. Individualized instruction does not appear to be a high priority (20%).
   d. Most instructors utilize materials in developing curriculum (63%), supplementing instruction (56%), and planning their program (52%).
   e. Some concern should be directed toward the metals, construction, and drafting instructors that indicate zero usage of ILS materials.

2. Where is this material located at this time?

   a. Most instructors (80%) have ODE materials located in their offices or classrooms. (Some indicated they even had an extra copy at home for their convenience.)

3. How did you learn about these materials?

   a. There has not been an organized approach for getting new materials into the field. Teachers have learned about them from a variety of sources.
   b. Career Directors are expected to introduce new materials to their instructors. Only 28% of the 94 instructors learned about the materials from their career director. (When interviewing career directors it was found that some are part time and lack the time, expertise, and commitment to bother with teacher orientation to ODE materials.)
   c. Teachers indicated that they look to their career directors for information in regard to ODE materials.

4. Where did you receive training on the use of these materials?

   a. A significant amount of exposure to material use is being provided by OSU through pre-service training (30%).
   b. Personal interviews of instructors brought out that the pre-service and post-graduate training should be more intensive in how to use the cluster guides in curriculum development and the adaptation of individualized learning materials.
   c. Forty out of 93 respondents indicated they had received no training in the use of ODE materials.

5. How often do you use these materials?

   a. Most instructors utilize the cluster guides when developing curriculum and planning their programs and then very seldom look at them again. (Seldom, 29%; Occasionally, 40%)
   b. ILS materials are utilized by a few of the instructors of the programs designed for their use on a daily (13%) and a weekly (8%) basis.
   c. Some instructors utilize the cluster guides on a monthly basis to review curriculum progress.

VI. RECOMMENDATIONS

1. ODE materials should have clearly identified purposes and usage.

   Teachers should be consulted (on a broad range) about their specific needs before materials are developed for their use. Although all ODE materials have had teacher involvement in the development, it appears that many of the materials are the result of what ODE perceived teacher needs to be rather than actual needs.

2. A planned approach should be implemented for providing in-service to teachers on how to use ODE materials. This weakness is reflected throughout the comments of instructors and career directors.

3. A planned approach for informing teachers of the existence of new materials must be developed and implemented. Constant turnover of staff in local schools creates a continuous need for re-orientation to materials. A responsibility agent should be identified and the identity communicated to the appropriate persons.

4. The official publications pamphlet used as a basis for identifying ODE produced materials for this project should be revised and distributed annually to all vocational instructors, career directors, and curriculum directors. (See responses to question #7, page 26-27.)

5. Community college instructors should be informed of existing and newly developed ILS materials. (See page 33.)

6. The Oregon Department of Education must make an additional effort to see that their materials are accepted by OSU staff and their introduction and use made an integral part of pre-service, in-service and post-graduate course work. Such action will serve to update new teachers and many old teachers in the existence and use of ODE materials.

7. A statewide study of this type should be conducted before other materials are developed. A questionnaire could be developed from the responses of career directors and teachers in the Linn-Benton study and mailed statewide. Using the findings, ODE could then develop materials that were highly usable and save dollars in the process. The 13 community colleges should be included but a separate questionnaire designed for data collection.

8. The primary deterrents to the use of ODE materials appear to be:

   (1) Limited range of usage for some materials. For example, most cluster guides are useful in the early stages of program development but have little utility after the program is established.
   (2) Lack of training in the proper use of materials. (40% of the 94 instructors received no training in use of materials.)
   (3) Lack of knowledge of existence of materials.

9. Future publications should contain more specifics that are helpful to the classroom teacher. Suggested activities, resources, curriculum standards, and techniques of teaching are common request items. Most feel that guides are too general for everyday use and fail to provide answers for the teacher.

10. Teacher involvement in the up-dating/revision process is highly recommended. This can serve as an in-service component as well. By having teachers involved in this process the document becomes theirs and more acceptable to use.

11. All vocational instructors should have ODE materials that have been developed for their occupational area available and located in their office or classroom.

12. Instructors and career directors in many cases identified materials developed in various projects around the state, but the materials are not available through ODE. Some consideration should be given to making these materials available since they are being utilized anyway.

13. Projects such as Foxfire (an interdisciplinary approach to language arts) and Occupational Versatility should be considered for statewide adaptation rather than continually trying to reinvent the wheel. Many of these types of materials are now being utilized, some in preference over ODE materials.

BUDGET

Title of Project--The Utilization of the Oregon Department of Education Materials by Vocational Teachers in Linn, Benton and Lincoln Counties.

Item	Total Costs	Local Costs	Federal Costs
A. Personnel			
1. Clerical	--	--	--
2. Employee Benefits	--	--	--
B. Travel	310.20	84.00	226.20
C. Services	--	--	--
D. Supplies Paper for questionnaire, reports, etc.	35.65		35.65
E. Equipment	--	--	--
F. Other Costs			
1. Phone	35.00	--	35.00
2. Postage	40.00	--	40.00
3. Administrative Costs @ 6%	20.21	--	20.21
TOTAL	$441.06	$84.00	$357.06

VII. APPENDIX

1. Listing of Schools and Approved Secondary Programs.
2. Instructors and Career Directors of Approved Secondary Vocational Programs.
3. Linn-Benton Community College Occupational Programs 1976-77.
4. Materials Produced for Classroom Use by Oregon Department of Education.
5. Questionnaire.

Listing of Schools and Approved Secondary Programs

(KEYS TO CODE NUMBERS)

SCHOOLS:

A. Alsea
B. Philomath
C. Corvallis
D. Crescent Valley
E. Monroe
F. Sweet Home
G. Scio
H. Santiam
I. Central Linn
J. Lebanon
K. Harrisburg
L. West Albany
M. South Albany
N. Lincoln County Schools

PROGRAMS:

1. Accounting
2. Agriculture/Horticulture
3. Child Care
4. Construction
5. D.O./Work Experience
6. Electricity/Electronics
7. Food Service
8. Forest Products
9. Health Occupations
10. Auto/Ind. Mechanics
11. Marketing
12. Metals
13. Office Education
14. Vocational Drafting
15. Service Occupations

Instructors and Career Directors of Approved Secondary Vocational Programs

(KEYS TO CODE NUMBERS)

INSTRUCTORS:

1. Mullenix, James C.
2. Eikleberry, David B.
3. Held, Virginia L.
4. Whitfield, Evelyn
5. Zosel, Pat
6. Baker, Cheryl
7. Green, Dick
8. Hanrahan, Paul T.
9. Kessler, Audrey D.
10. Kovash, Paul
11. Lynberg, Don
12. Malpass, Janet K.
13. Mobley, Greg
14. Saari, Earl
15. Spitznogle, Lee R.
16. Whittle, Les
17. Williams, Lewis
18. Kilbourne, Jay L.
19. McConnaughy, Charles
20. Moorman, Nancy L.
21. Muirbrook, Bonnie
22. Rose, Verna C.
23. Sutherland, Kathryn E.
24. Turner, Nita
25. Weimer, Phillip
26. Williams, Lew
27. Ludviksen, Les
28. Wagner, Helen B.
29. Whitman, William
30. Fehr, Norman E.
31. Miner, Harold
32. Peckfelder, Robert L.
33. Thompson, Charles D.
34. Vader, Eldon C.
35. Ankeny, Dennis E.
36. Ansell, Collin K.
37. Chambers, Cheryl L.
38. Downing, Patrick D.
39. Pambrun, Fay S.
40. Sawtelle, Deanna M.
41. Sipe, Larry W.
42. Vanderzanden, John H.
43. Hilgers, Paula J.
44. Ray Stephen
45. Fearell, Jack
46. Marshall, Clyde
47. Kreifer, Betty

COLORS:

INSTRUCTORS=Yellow
CAREER DIRECTORS=Blue

48. Moore, Don L.
49. Pynch, Joel J.
50. Rothfuss, Sara M.
51. Anderson, Erland J.
52. Becker, James J.
53. Boos, Stuart L.
54. Brubaker, Sherry S.
55. Cooper, Delbert S.
56. Elder, William D.
57. Enke, Merle G.
58. Gerig, Wayne
59. Going, Eugene R.
60. Hartmann, Duane E.
61. Hodson, Robert B.
62. Hughes, Gary C.
63. Hughes, John W.
64. Neill, Darrel D.
65. Osborn, Phyllis
66. Park, Ruth S.
67. Hartmann, Duane
68. Simpson, Floyd M.
69. Beelart, Colleen A.
70. Conlee, Steve
71. Peterson, Richard
72. Chambers, Darlene M.
73. Haney, Dennis L.
74. Heintzman, Wendell J.
75. Jones, Francis R.
76. Lohse, John G.
77. Martin, Bonnie D.
78. Angel, Karen R.
79. Bohles, Faye G.
80. Elwood, George K.
81. Moore, Del R.
82. Schmidt, Gene W.
83. Swedberg, Shirley J.
84. Trautman, Dale E.
97. Carroll, Donnie

CAREER DIRECTORS:

85. Mullenix, James C.-----Alsea High School
86. Mellen, Elaine-----Philomath High School
87. Pugh, John-----Corvallis High School
88. Lindersmith, Tom-----Crescent Valley High School
89. Lamping, Clarence-----Monroe High School
90. Mechals, Jim-----Sweet Home High School
91. Pambrun, Sam-----Scio High School
92. Moore, Rich-----Santiam High School
93. Moore, Don-----Central Linn High School
94. Porfily, Chuck-----Lebanon High School
95. Biegler, Bob-----Harrisburg, High School
96. Grossnicklaus, Jim-----West Albany High School,
-----South Albany High School

LINN-BENTON COMMUNITY COLLEGE
OCCUPATIONAL PROGRAMS
1976-77

PROGRAM	INSTRUCTOR
Farm Business Management	Jack Cushman
Agribusiness	Jack Cushman
Animal Technology	Bruce Moos
Fertilizer & Chemicals	Greg Paulson
Turf--Forage Seed	Greg Paulson
Turf Management	Greg Paulson
Engineering Technology	Ken Collett
Wastewater Technology	Jim Felton
Water & Wastewater Treatment Plant Operator	Jim Felton
Water/Wastewater Technology	Jim Felton
Science Lab Tech.	Pete Scott
Accounting	Maynard Chambers
General Business	
Secretarial Science	Patsy Chester
Legal Secretarial	Patsy Chester
Administrative Secretary	Patsy Chester
Educational Secretary	Patsy Chester
Medical Receptionist	Patsy Chester
Dental Assistant	Dr. Jack Arthur
Technical Nursing (ADN)	Adella Wood
Practical Nursing	Adella Wood
Nursing Assistant	Ann Mills
Nursing Home Nursing Assistant	Bobbie Lamberton
Human Service Resource Tech.	Jean Schreiber
Fire Science	
Industrial Safety	
Corrections	Dr. Hankey
Criminal Justice Administration	Dr. Hankey
Food Services	Rolfe Stearns, Charles Dallman
Advanced Professional Cooking	Rolfe Stearns, Charles Dallman
Chef Training	Rolfe Stearns, Charles Dallman

PROGRAM	INSTRUCTOR
Restaurant Management	Rolfe Stearns, Charles Dallman
Business Management	
Banking & Finance	
Supervisory Training	
Crafts & Industrial Trades	
Construction Technology--Carpentry	
Electricity/Electronics Technology	Kent Hansen
Automotive Technology	Keith Pond, Bill Pere, Dave Carter
Auto Body Repair	Gene Hysmith, Larry Thornton
Tune-up Specialist	
Transmission Specialist	
Brake Specialist	
Refrigeration, Heating & Air Conditioning	Mike Vincent
Rec. Vehicle & Small Engine Repair	Lee Hansen
Machine Technology	John Griffiths
Metallurgical Technology	Carl Love
Welding	John Alvin
Drafting Technology	Dave Miller
Commercial Art	Jim Tolbert
Graphic Production	Jim Tolbert

MATERIALS PRODUCED FOR CLASSROOM USE

BY

OREGON DEPARTMENT OF EDUCATION

ACCOUNTING CLUSTER GUIDE

AGRICULTURE CLUSTER GUIDE

BUILDING CONSTRUCTION CLUSTER GUIDE

CHILD CARE OCCUPATIONS GUIDE

CLERICAL OCCUPATIONS CLUSTER GUIDE

ELECTRICITY-ELECTRONICS CLUSTER GUIDE

FOOD SERVICE OCCUPATIONS CLUSTER GUIDE

FOREST PRODUCTS CLUSTER GUIDE

HEALTH OCCUPATIONS CLUSTER GUIDE

INDUSTRIAL MECHANICS CLUSTER GUIDE

MARKETING CLUSTER GUIDE

METALS CLUSTER GUIDE

STENO-SECRETARIAL CLUSTER GUIDE

SERVICE OCCUPATIONS CLUSTER GUIDE

CAREER CLUSTER FACILITIES GUIDE

HOME ECONOMICS OCCUPATIONS--AN EXPLORATORY UNIT

TRAINING AIDS CONSTRUCTION DETAILS

INDUSTRIAL MECHANICS ASSESSMENT AND PLANNING MANUAL

AUDIOVISUAL SUPPLEMENT TO THE INDUSTRIAL MECHANICS CLUSTER GUIDE

CLUSTER IMPLEMENTATION GUIDE

HEALTH OCCUPATIONS--AN EXPLORATORY COURSE

HEALTH OCCUPATIONS--AN EXPLORATORY MODULE

SO NOW YOU'RE ON YOUR OWN

CLUSTER PROGRAM ASSESSMENT GUIDE

INDIVIDUALIZED LEARNING SYSTEMS (ILS)
LEARNING MODULES:
AUTO BODY AND FENDER REPAIR
AUTO MECHANICS
BOOKKEEPING
CONSTRUCTION
DRAFTING
ELECTRONICS
HOME ECONOMICS
INDUSTRIAL MECHANICS
METALS--MACHINE SHOP
METALS--FOUNDRY
WELDING
BOOKLETS:
ELECTRICAL THEORY
FOREST TECHNOLOGY
VO-TECH MATH

QUESTIONNAIRE

1. HOW DO YOU USE THESE MATERIALS?

___TO DEVELOP CURRICULUM
___TO PLAN PROGRAM
___FOR INDIVIDUALIZED INSTRUCTION
___TO SUPPLEMENT INSTRUCTION

2. WHERE IS THIS MATERIAL LOCATED AT THIS TIME?

___IN MY OFFICE OR CLASSROOM
___IN THE LOCAL CAREER DIRECTOR'S OFFICE
___WITH THE STATE PROGRAM SPECIALIST
___IN THE DISTRICT OFFICE
___WITH THE REGIONAL COORDINATOR

3. HOW DID YOU LEARN ABOUT THESE MATERIALS?

___FROM THE LOCAL ADMINISTRATION
___FROM THE LOCAL CAREER DIRECTOR
___FROM A FELLOW INSTRUCTOR
___FROM THE REGIONAL CAREER COORDINATOR
___STATE PROGRAM SPECIALIST

4. WHERE DID YOU RECEIVE TRAINING FOR THE USE OF THESE MATERIALS?

___DURING COLLEGE PREPARATION
___AT A LOCAL IN-SERVICE
___AT A DISTRICT IN-SERVICE
___AT A REGIONAL IN-SERVICE
___AT A STATE IN-SERVICE

5. HOW OFTEN DO YOU USE THESE MATERIALS?

___USED SELDOM
___USED OCCASIONALLY
___USED MONTHLY
___USED WEEKLY
___USED DAILY

6. WHAT TYPES OF MATERIALS WOULD YOU RECOMMEND FOR DEVELOPMENT BY THE OREGON STATE DEPARTMENT OF EDUCATION?

_____

_____

_____

_____

7. MATERIALS UTILIZED THAT ARE NOT ON THE OFFICIAL LIST?

_____

_____

TYPE OF DOCUMENT_____

CODE NO._____ YEARS OF EXPERIENCE IN AREA_____